

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Cancel claim 17.

Amend claims 12 and 18 as follows.

Add new claims 19-21.

Listing of Claims:

- 1 1. **(Previously amended)** A method of managing signal-
- 2 processing resources of a multimedia platform that is designed for
- 3 applying signal-processing operations to multimedia signals, comprising:
- 4 defining multimedia functions each capable of monitoring the
- 5 operation of a set of multimedia platform signal-processing resources,
- 6 putting them in contact, and adapting the contents of said signal-
- 7 processing resource set depending on the multimedia signal to be
- 8 processed; and
- 9 using said multimedia functions to apply said signal-processing
- 10 operations to said multimedia signals, wherein
- 11 said using comprises:
- 12 the signal processing resources of a plurality of types declaring
- 13 themselves to a resource management function;
- 14 the resource management function registering values of description
- 15 parameters of the declared resources that represent functions of the
- 16 declared resources, and connectivity of the declared resources including
- 17 addresses of the declared resources;
- 18 configuring the multimedia functions to use certain types of the
- 19 signal processing resources;
- 20 an application issuing a high-level instruction to apply a multimedia
- 21 function of the multimedia functions to the multimedia signals;
- 22 the multimedia function that corresponds to the high-level
- 23 instruction executing the high-level instruction by issuing a plurality of

- 24 elementary control instructions that define operations enabling control of
25 the signal processing resources, including
- 26 - dynamically allocating available ones of the signal processing
27 resources of the configured types that are needed to effect the
28 high-level instruction,
 - 29 - adapting the multimedia function to the high-level instruction,
30 and
 - 31 - setting up data exchanges among the allocated resources.

1 **2. (Original)** The method of claim 1 wherein:
2 prior to applying any signal-processing operations to multimedia
3 signals, a multimedia function group is formed, wherein this group
4 includes all multimedia functions required for processing multimedia
5 signals in a given application.

1 **3. (Original)** The method of claim 1 wherein:
2 defining multimedia functions comprises
3 assembling basic functions that are configured for using the
4 resources that are available on the multimedia platform.

1 **4. (Original)** The method of claim 3 wherein:
2 prior to applying any signal-processing operations to multimedia
3 signals, a multimedia function group is formed, wherein this group
4 includes all multimedia functions required for processing multimedia
5 signals in a given application.

1 **5. (Previously amended)** The method of claim 3 wherein:
2 each signal-processing resource of the multimedia platform belongs
3 to one of the types of resources, and
4 the signal-processing resources of a same type are controlled by
5 the same elementary control instructions.

1 6. **(Original)** The method of claim 5 wherein:
2 prior to applying any signal-processing operations to multimedia
3 signals, a multimedia function group is formed, wherein this group
4 includes all multimedia functions required for processing multimedia
5 signals in a given application.

1 7. **(Previously amended)** The method of claim 3, wherein:
2 said declaring comprises declaring the resources that are available
3 on the multimedia platform to a negotiation device of the multimedia
4 platform when they are powered-on for a first time.

1 8. **(Original)** The method of claim 7 wherein:
2 prior to applying any signal-processing operations to multimedia
3 signals, a multimedia function group is formed, wherein this group
4 includes all multimedia functions required for processing multimedia
5 signals in a given application.

1 9. **(Previously amended)** The method of claim 7 wherein:
2 each signal-processing resource of the multimedia platform belongs
3 to one of the types of resources, and
4 the signal-processing resources of a same type are controlled by
5 the same elementary control instructions.

1 10. **(Original)** The method of claim 9 wherein:
2 prior to applying any signal-processing operations to multimedia
3 signals, a multimedia function group is formed, wherein this group
4 includes all multimedia functions required for processing multimedia
5 signals in a given application.

- 1 **11. (Previously amended)** An apparatus for managing signal-
2 processing resources of a multimedia platform that is designed for
3 applying signal-processing operations to multimedia signals, comprising:
4 means for defining multimedia functions each capable of monitoring
5 the operation of a set of multimedia platform signal-processing resources,
6 putting them in contact, and adapting the contents of said signal-
7 processing resource set depending on the multimedia signal to be
8 processed; and
9 means for using said multimedia functions to apply said signal-
10 processing operations to said multimedia signals, wherein
11 said means for using comprise:
12 a resource management function, responsive to the signal
13 processing resources of a plurality of types declaring themselves to the
14 resource management function, for registering values of description
15 parameters of the declared resources that represent functions of the
16 declared resources, and connectivity of the declared resources including
17 addresses of the declared resources, and further for configuring the
18 multimedia functions to use certain types of the signal processing
19 resources; and
20 a multimedia function corresponding to a high-level instruction,
21 responsive to an application issuing the high-level instruction to apply a
22 multimedia function of the multimedia functions to the multimedia signals,
23 for executing the high-level instruction by issuing a plurality of elementary
24 control instructions that define operations enabling control of the signal
25 processing resources, including
26 - dynamically allocating available ones of the signal processing
27 resources of the configured types that are needed to effect the
28 high-level instruction,
29 - adapting the multimedia function to the high-level instruction,
30 and
31 - setting up data exchanges among the allocated resources.

1 **12. (Currently amended)** A multimedia platform for defining
2 multimedia functions each capable of monitoring the operation of a set of
3 multimedia platform signal-processing resources, putting them in contact,
4 ~~adapting the contents of said signal-processing resource set depending on~~
5 ~~the~~ to a multimedia signal to be processed, and using said multimedia
6 functions to apply said signal-processing operations to said multimedia
7 signals, ~~and including a plurality of signal-processing resources,~~
8 comprising:

9 a plurality of the signal-processing resources,
10 a resource interface ~~wherein defining operations are defined that~~
11 ~~make it possible to control~~ for controlling said signal-processing resources;

12 a resource management unit for dynamically allocating signal-
13 processing resources depending on the signal-processing operation to be
14 carried out and managing exchanges among signal-processing resources,
15 including a resource management function, responsive to the signal
16 processing resources of a plurality of types declaring themselves to the
17 resource management function, for registering values of description
18 parameters of the declared resources that represent functions of the
19 declared resources, and connectivity of the declared resources including
20 addresses of the declared resources, and further for configuring the
21 multimedia functions to use certain types of the signal processing
22 resources;

23 an application interface wherein said multimedia functions are
24 defined; and

25 an application unit having an application program for applying said
26 multimedia functions, including a multimedia function corresponding to a
27 high-level instruction, responsive to the application program issuing the
28 high-level instruction to apply a multimedia function of the multimedia
29 functions to the multimedia signals, for executing the high-level instruction

- 30 by issuing a plurality of elementary control instructions that define
31 operations enabling control of the signal processing resources, including
32 - dynamically allocating available ones of the signal processing
33 resources of the configured types that are needed to effect the
34 high-level instruction,
35 - adapting the multimedia function to the high-level instruction,
36 and
37 - setting up data exchanges among the allocated resources.

1 **13. (Previously added)** The method of claim 1 wherein:
2 configuring the multimedia functions comprises
3 configuring the multimedia functions to use signal processing
4 resources that are accessible at given addresses; and
5 dynamically allocating available ones of the signal processing
6 resources of the configured types comprises
7 dynamically allocating available ones of the signal processing
8 resources of the types with whose addresses the multimedia function is
9 configured.

1 **14. (Previously added)** The method of claim 1 wherein:
2 setting up data exchanges among the allocated resources
3 comprises
4 putting the allocated resources into contact with each other by
5 negotiating between flow entry ports and flow output ports of the allocated
6 resources to configure the ports for connecting with each other.

1 **15. (Previously added)** The method of claim 1 wherein:
2 adapting the multimedia function to the high-level instruction
3 comprises

4 if needed, requesting from the resource management function
5 available ones of other types of the signal processing resources that are
6 needed to effect the high-level instruction, and
7 integrating among the allocated resources the requested resources
8 of the other types.

1 **16. (Previously added)** The method of claim 1 further comprising:
2 an application program expressing its needs in terms of resources;
3 the resource management function responding to the expressed
4 need by forming a group of the multimedia functions that provide to the
5 application program a control interface comprising high-level instructions
6 for controlling the needed resources; and
7 the resource management function allocating the needed resources
8 to the group of multimedia functions by configuring the multimedia
9 functions of the group with addresses of the types of the needed
10 resources.

1 **17. (Canceled)**

1 **18. (Currently amended)** The apparatus of claim ~~47~~11
2 comprising:
3 a resource interface wherein operations are defined that make it
4 possible to control said signal processing resources;
5 a resource management unit for dynamically allocating signal
6 processing resources depending on the signal processing operation to be
7 carried out and managing exchanges among signal processing resources;
8 an application interface wherein said multimedia functions are
9 defined; and
10 an application unit having an application program for applying said
11 multimedia functions.

1 19. **(New)** The apparatus of claim 11 wherein:
2 the resource management function configures the multimedia
3 functions to use signal processing resources that are accessible at given
4 addresses; and
5 the multimedia function dynamically allocates available ones of the
6 signal processing resources of the types with whose addresses the
7 multimedia function is configured.

1 20. **(New)** The apparatus of claim 11 wherein:
2 the multimedia function puts the allocated resources into contact
3 with each other by negotiating between flow entry ports and flow output
4 ports of the allocated resources to configure the ports for connecting with
5 each other.

1 21. **(New)** The apparatus of claim 11 wherein:
2 the resource management function responds to an application
3 program expressing its needs in terms of resources by forming a group of
4 the multimedia functions that provide to the application program a control
5 interface comprising high-level instructions for controlling the needed
6 resources, and allocates the needed resources to the group of multimedia
7 functions by configuring the multimedia functions of the group with
8 addresses of the types of the needed resources.